

PSG POLYTECHNIC COLLEGE  
DIPLOMA (SW) / (TEXTILE) - VII TERM  
TD9903 - MODERN YARN AND FABRIC PRODUCTION  
Model Question Paper

**Instructionss**

1. All the **Section I** questions for both Part A and Part B (which will be given to candidates half an hour before the scheduled close of the examination) should be answered in the Question Paper itself and must be attached to the back of the main answer book.
2. In **Section II** answer **All** questions (a & b subdivisions **OR** c & d subdivisions) of Part-A and Part-B in the main answer book

**Max.Marks : 75**

**4X8 = 32**

**SECTION II**

**PART - A**

- I.** a. Write the principle of OE spinning [3 marks]
- b. With a neat sketch explain the working of Open End spinning. [5 marks]
- [OR]
- c. Write about Rotor grooves [3 marks]
- d. Explain in detail about Automation in OE Spinning [5 marks]
- II.** a. Write a note on Types of Feeding in OE [3 marks]
- b. Explain the working of DREF - III Spinning with a neat sketch [5 marks]
- [OR]
- c. Write about yarn properties and advantages of DREF spinning [3 marks]
- d. Explain the working of SIRO spinning process with a sketch [5 marks]
- III.** a. Write the principle of self- twist spinning [3 marks]
- b. With a sketch explain how the self- twist spinning works [5 marks]
- [OR]
- c. Give the yarn properties of ST Yarns. [3 marks]
- d. Explain in detail how the strand spacing influencing the SIRO yarn characteristics [5 marks]
- IV.** a. Define Core and Cover Spun Yarn. [3 marks]
- b. Airjet spun yarn was not twisted, it is wrapped – Justify with a diagram [5 marks]
- [OR]
- c. Write the Limitations and end uses of Air Jet spinning [3 marks]
- d. Explain the working of Hollow Spindle spinning process. [5 marks]

**PART - B**

**Marks 4X8 = 32**

- V.** a. Classify shuttleless weaving machines and write about its merit and demerits. [3 marks]
- b. What are the precautions to be taken care for preparing the warp beam for shuttleless Weaving [5 marks]
- [OR]**
- c. Write about selvages for shuttleless loom [3 marks]
- d. With a sketch explain the working of Torsion bar picking mechanism [5 marks]
- VI.**a. Write a note on weft storage device [3 marks]
- b. With a sketch explain the Gabler weft insertion system [5 marks]
- [OR]**
- c. Give the salient features of Gripper Projectile loom [3 marks]
- d. With a sketch explain the Dewas weft insertion system. [5 marks]
- VII.** a. Give a principle and salient features of a Air jet loom [3 marks]
- b. Write about Rapier derives [5 marks]
- [OR]**
- c. What are the functional elements of a Jet loom [3 marks]
- d. Explain with a sketch the weft insertion system of Air jet loom [5 marks]
- VIII.** a. What is the difference between the Air jet and Water jet loom [3 marks]
- b. Explain the working of Picking System of water Jet loom [5 marks]
- [OR]**
- c. Write the advantages and disadvantages of multiphase weaving M/c. [3 marks]
- d. Write about Shedding, Picking, and Beat up of a multiphase weaving machine [5 marks]

**TD9903 MODERNYARN AND FABRIC PRODUCTION**

Roll No:  Signature of Hall Superintendent:

**Section I**

**PART A**

**Marks: 5x1=5**

1. Minimum Rotor Diameter (in mm)
  - a) Staple Length x 1.3
  - b) Staple Length x 1.8
  - c) Staple Length x 1.5
  - d) Staple Length x 1.2
  
2. Yarn Delivery Speed of DREF spinning is
  - a) 200 mpm
  - b) 300 mpm
  - c) 100 mpm
  - d) 400 mpm
  
3. The Strand spacing of P/C Roving in SIRO Spinning is
  - a) 10
  - b) 12
  - c) 15
  - d) 20
  
4. In Air Jet spinning the nozzle N1 and N2 rotates in
  - a) Same direction
  - b) No rotation
  - c) Opposite direction
  - d) To and fro Movement
  
5. Minimum No. Of fibers required to produce DREF spun yarn 
  - a) 30
  - b) 80
  - c) 98
  - d) 120

**Total Marks Scored:**

**PART B**

**Marks: 6x1=6**

6. Noise level of shuttless loom is

- a) 85 – 95 DP
- b) 30 – 40 DP
- c) 120 – 150 DP
- d) 40 – 70 DP

7. Shuttle weight of a miniature shuttle in gripper loom

- a) 15 – 20 Gms
- b) 50 – 60 Gms
- c) 30 - 45 Gms
- d) 70 – 80 Gms

8. Dewas system is

- a) Loop Transfer
- b) No Transfer
- c) Tip Transfer
- d) Warp transfer

9. Profile reed used in

- a) Shuttle loom
- b) Gripper Projectile loom
- c) Air Jet loom
- d) Rapier loom

10. Accumulator is a

- a) Weft measuring device
- b) Defect in warp yarn
- c) Warp measuring device
- d) Defect in waft yarn

11. Circular loom is a

- a) Multiphase weaving
- b) Warping machine
- c) Knitting machine
- d) Weft winding Machine

**Total Marks Scored:**

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